



CentreVu[®] Call Management System

Release 3 Version 9

Sun[®] Enterprise[™] 3000 Computer

CentreVu Upgrade Express Instructions

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Notice

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Preventing Toll Fraud

"Toll fraud" is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or working on your company's behalf). Be aware that there may be a risk of toll fraud associated with your system and that, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

Avaya Fraud Intervention

If you *suspect that you are being victimized* by toll fraud and you need technical assistance or support, call Technical Service Center Toll Fraud Intervention Hotline at +1 800 643 2353 for the United States and Canada. For additional support telephone numbers, see the Avaya web site:

<http://www.avaya.com>

Click on **Support**, then click on **Escalation Lists US and International**. This web site includes telephone numbers for escalation within the United States. For escalation telephone numbers outside the United States, click on **Global Escalation List**.

Providing Telecommunications Security

Telecommunications security (of voice, data, and/or video communications) is the prevention of any type of intrusion to (that is, either unauthorized or malicious access to or use of) your company's telecommunications equipment by some party.

Your company's "telecommunications equipment" includes both this Avaya product and any other voice/data/video equipment that could be accessed via this Avaya product (that is, "networked equipment").

An "outside party" is anyone who is not a corporate employee, agent, subcontractor, or working on your company's behalf. Whereas, a "malicious party" is anyone (including someone who may be otherwise authorized) who accesses your telecommunications equipment with either malicious or mischievous intent.

Such intrusions may be either to/through synchronous (time-multiplexed and/or circuit-based) or asynchronous (character-, message-, or packet-based) equipment or interfaces for reasons of:

- Utilization (of capabilities special to the accessed equipment)
- Theft (such as, of intellectual property, financial assets, or toll-facility access)
- Eavesdropping (privacy invasions to humans)
- Mischief (troubling, but apparently innocuous, tampering)
- Harm (such as harmful tampering, data loss or alteration, regardless of motive or intent)

Be aware that there may be a risk of unauthorized intrusions associated with your system and/or its networked equipment. Also realize that, if such an intrusion should occur, it could result in a variety of losses to your company (including but not limited to, human/data privacy, intellectual property, material assets, financial resources, labor costs, and/or legal costs).

Your Responsibility for Your Company's Telecommunications Security

The final responsibility for securing both this system and its networked equipment rests with you - an Avaya customer's system administrator, your telecommunications peers, and your managers. Base the fulfillment of your responsibility on acquired knowledge and resources from a variety of sources including but not limited to:

- Installation documents
- System administration documents
- Security documents
- Hardware-/software-based security tools
- Shared information between you and your peers
- Telecommunications security experts

To prevent intrusions to your telecommunications equipment, you and your peers should carefully program and configure:

- your Avaya-provided telecommunications systems and their interfaces
- your Avaya-provided software applications, as well as their underlying hardware/software platforms and interfaces
- any other equipment networked to your Avaya products.

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Avaya Support

Avaya provides a telephone number for you to use to report problems or to ask questions about your contact center. The support telephone number is 1-800-242-2121 in the United States and Canada. For additional support telephone numbers, see the Avaya web site:

<http://www.avaya.com>

Click on **Support**, then click on **Escalation Lists US and International**. This web site includes telephone numbers for escalation within the United States. For escalation telephone numbers outside the United States, click on **Global Escalation List**.

Acknowledgment

This document was written by the CRM Development group.

**CentreVu Call Management System
Release 3 Version 9
Sun Enterprise 3000 Computer CVUE Instructions**

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Preface

Overview

The *CentreVu Call Management System Release 3 Version 9 Sun® Enterprise™ 3000 Computer CentreVu Upgrade Express Instructions* are written for technicians who are upgrading an Enterprise 3000 computer from Call Management System (CMS) R3V5u, R3V6, or R3V8 to CMS R3V9.

Note:

CentreVu Upgrade Express (CVUE) can NOT be used to upgrade a Sun SPARCserver™ computer to R3V9. You must follow the procedures found in *CentreVu CMS Release 3 Version 9 Platform Upgrade and Data Migration Instructions*. These instructions are shipped with every new hardware platform sold with CMS R3V9.

Related documents

The following table lists sources for additional information about the Enterprise 3000 computer. To order any of these documents, call the Publications Center at 1-800-457-1235 (United States and Canada) or +1-410-568-3680 (outside of the United States and Canada).

Title	Document number
Installing CMS computers	
<i>CentreVu Call Management System Release 3 Version 6 Sun Enterprise 3000 Computer Hardware Installation</i>	585-215-867
<i>CentreVu Call Management System Release 3 Version 6 Sun Enterprise 3000 Computer Connectivity Diagram</i>	585-215-865
Maintaining and troubleshooting a CMS computer	
<i>CentreVu Call Management System Enterprise 3000 and SPARCserver Computers Hardware Maintenance and Troubleshooting</i>	585-214-016

Support

If a problem arises that requires assistance, use the support information and help lines presented below.

Frequently asked questions (FAQs)

For answers to common problems, CMS customers and Avaya technicians can access the CMS technical support FAQ at:

<http://www.avaya.com>

Click on **Support**, then click on **Call Center/CRM Solutions**, then click on **CentreVu Call Management System**, and then click on **FAQ**.

Please check this information before you call in a trouble ticket. It could save you time and money.

Customer support for the United States

Customers can report problems and generate trouble tickets by calling:

1-800-242-2121

The customer is prompted to identify the type of problem (that is, Automatic Call Distribution, hardware, or CentreVu CMS), and is connected to the appropriate service organization.

Technician support for the United States

Avaya technicians can receive help by calling:

1-800-248-1234

Customer and technician support outside the United States

For customer and technician support outside the United States, see the Avaya web site:

<http://www.avaya.com>

Click on **Support**, then click on **Escalation Lists US and International**. For escalation telephone numbers outside the United States, click on **Global Escalation List**.

Preface

Upgrading an Enterprise 3000 to CMS R3V9

Overview

This chapter contains the procedures that are required to upgrade an Enterprise 3000 computer to CMS R3V9. The process used to upgrade a Sun computer is called CentreVu Upgrade Express (CVUE). The CVUE process includes the following:

- Preparing for the upgrade
- Procedures done by the customer before the upgrade begins
- Upgrading the system:
 - Extracting the customer's administration and options
 - Installing new disk drives that are preinstalled with the CMS R3V9 software
 - Copying and activating the customer's administration and options
 - Updating the switch links and removing the upgrade files
 - Migrating the customer's data
- Procedures done by the customer after the upgrade is finished



Important:

The site technician must have a copy of these instructions before beginning the upgrade.



Important:

All CVUE procedures are done at the customer's site. However, when the upgrade is being supported by remote personnel, such as CMS Provisioning, the system commands used in this document should be done by the remote personnel so that they can monitor the progress of the upgrade. Run the commands from the local console only when instructed to do so, or when there is no remote support.

Preparing for the upgrade

Overview

Before you begin a CVUE upgrade, consider the following issues:

- Trouble escalation
- Hardware additions
- Disk mirroring
- Customization issues
- Upgrade parts

Trouble escalation

If problems occur during the upgrade procedure:

1. Escalate the problem through normal channels.
2. Inspect the upgrade log file that is located at **`/var/log/cvuelog`**.
3. If the problem persists, shut down the system, reinstall the customer's old disk configuration, and bring the system back up under the old CMS load.

Hardware additions

Avoid hardware additions whenever possible during a CVUE upgrade. If the customer wants to increase the amount of RAM that is in the computer, add it only after verifying that the CVUE upgrade was successful. Install the RAM as described in the maintenance and troubleshooting document for the computer.

Disk mirroring

The CVUE disk drives that accompany this document are intended for an upgrade to a nonmirrored system. If the customer has purchased additional disk drives to convert the system from nonmirrored to mirrored, you must first do the CVUE upgrade for the nonmirrored system as described in this document.

 **Important:**

During the CVUE upgrade, do not insert any disks that were not part of the CVUE kit.

After you have completed the CVUE procedures, use the instructions given in *CMS R3V9 Software Installation, Maintenance, and Troubleshooting*, 585-215-956, to convert the system from nonmirrored to mirrored.

Customization issues

If the customer's CMS computer has third-party software or customizations that were added to the standard set of CMS-related software, such as network printers or Visual Vectors, those software packages and customizations are not preserved by the CVUE upgrade process. The customer must collect, reinstall, recompile, and reconfigure any non-CMS software after the upgrade is completed and approved.

The customer data copied during the upgrade procedure includes information such as the following:

- License information
- User logins and passwords
- System name and IP address
- Serial printer administration
- CMS administration, setup, and authorizations

For a complete list of the files copied during the upgrade, see the **`/var/log/cvuelog`** file after the upgrade is complete. A copy of the old system's **`/etc/vfstab`** file is saved in the **`cvuelog`** file.

Parts list

When upgrading an Enterprise 3000 computer to CMS R3V9, the following parts are delivered to the customer's site:

- One boot disk drive (labeled "Boot Disk - Slot 0")
- Optionally, up to 9 nonboot blank formatted disk drives
 - The quantity of optional nonboot disks depends on how many the customer ordered.
- One 160-meter, 8-millimeter blank tape
- CVUE Upgrade Tool CD
- Blank labels that are used to label the old disk drive configuration
- A complete set of system software, including:
 - R3V9 CMS
 - R3V9 Supplemental Services
 - Solaris[®] 8 Upgrade
 - Informix[®] IDS
 - Informix ILS
 - Informix SQL (optional)
 - Driver CD
 - Alarm Admin GUI Client

Procedures that are done by the customer before the upgrade

Overview

It is the customer's responsibility to ensure that the following procedures are done before a technician begins an upgrade to CMS R3V9. Use this checklist to verify that the procedures are done.

Procedure	Completed
Clean the tape drive.	
Determine the current CMS load.	
Do a CMSADM backup, if needed.	
If Visual Vectors is installed, back up the Visual Vectors vector layouts and comments the night before the upgrade.	
Do a full maintenance backup of all administration data, historical data, and non-CMS data the night before the upgrade.	
Do an incremental maintenance backup of all administration data, historical data, and non-CMS data immediately before the upgrade procedure begins.	
Check for old printer requests and large mail files.	
Check for nonsequential ACDs.	
Collect all third-party and custom software for reinstallation after the upgrade.	

 **CAUTION:**

It is highly recommended that customers do NOT reuse their old disk drives as part of the upgrade procedure. These old disk drives should be saved for system recovery if any problems occur during the upgrade procedure.

Cleaning the tape drive

See the hardware documentation for your Sun computer for instructions on how to clean the tape drive.

Determining the current CMS load

To display the current CMS load:

1. Enter:

```
pkginfo -x cms
```

2. Save this information for troubleshooting purposes.

Doing a CMSADM backup

A recent CMSADM backup is required before beginning any upgrade. Preferably, a CMSADM backup should be done the night before the upgrade. Minimally, the CMSADM backup must not be *more* than a week old. Check the **/cms/install/logdir/backup.log** file for the date of the last CMSADM backup.

CMSADM backup for R3V6 and earlier

The CMSADM backup for R3V6 and earlier is service affecting (that is, links will go down and data will not be collected during the backup). Schedule the backup for a low or no-traffic period.

To do a CMSADM backup on an R3V6 or earlier system:

⚠ WARNING:

Verify that you are using the correct tape for the tape drive on your system. Many of the tape cartridges look alike, and using the wrong tape can damage the tape drive mechanism and tape heads.

1. Log on as root.

2. Enter:

```
cmsadm
```

The system displays the CMS Administration menu:

```
Call Management System Administration Menu
Select a command from the list below.
 1) acd_create  Define a new ACD
 2) acd_remove  Remove all administration and data for an ACD
 3) backup      Filesystem backup
 4) diskmap     Estimate disk requirements
 5) memory      Estimate memory requirements
 6) realtime    Estimate real-time report refresh rate
 7) pkg_install Install a feature package
 8) pkg_remove  Remove a feature package
 9) run_cms     Turn CentreVu CMS on or off
10) port_admin  Administer Modems, Terminals, and Printers
Enter choice (1-10) or q to quit:
```

3. Enter the number that corresponds to the backup option.

The system displays the tape drive options:

```
Select the tape drive type:
 1) 150MB cartridge tape
 2) 60MB cartridge tape
 3) 14.0 Gbyte 8mm tape
 4) 5.0 Gbyte 8mm tape
 5) 2.5 Gbyte cartridge tape
 6) 4.0 - 8.0 Gbyte cartridge tape
 7) 40.0 Gbyte 8mm tape
Enter choice (1-7):
```

Upgrading an Enterprise 3000 to CMS R3V9

4. Enter the number for the tape drive that is installed on your system.

The system displays the following message and calculates the approximate number of tapes that are required for the backup. Note that this is an approximation, and more tapes may be needed.

```
Calculating approximate number of tapes required. Please wait.
```

If only one tape is required, the system displays the following message:

```
The backup will need approximately 1 tape.  
  
Please insert the first cartridge tape into </dev/rmt/X>.  
  
Press ENTER when ready:
```

If more than one tape is required, the system displays the following message:

```
The backup will need approximately <X> tapes.  
  
Be sure to number the cartridge tapes consecutively in the order  
they will be inserted.  
  
Please insert the first cartridge tape into </dev/rmt/x>.  
  
Press ENTER when ready:
```

5. To begin the backup, insert the first cartridge tape, wait for the tape to rewind and reposition, and then press **Enter**.

The system displays the following message:

```
The backup is about to begin. CMS is currently on.  
CMS will be turned off automatically during that portion  
of the backup which needs CMS off.  
Press ENTER to proceed or Del to quit:
```


Procedures that are done by the customer before the upgrade

6. To continue the backup, press **Enter**. Note that a CMSADM backup can take several hours, depending on the speed of the system and the tape drive.

If only one tape is required, the system displays the following message:

```
Backing up files...
.....
.....
(dots continue to display as the system is backed up)
.....
XXXXXX blocks
Tape verification
XXXXXX blocks

Please label the backup tape(s) with the date and the
current CMS version (r3vXxx.x)
```

7. Do one of the following:

- If only one tape is required, continue with Step 11.
- If more than one tape is required, the system displays the following message, and you continue with Step 8:

```
Backing up files...
.....
.....
(dots continue to display as the system is backed up)
.....
End of medium on "output".
Please remove the current tape, number it, insert tape number X,
and press ENTER
```

8. Insert the next tape and press **Enter** to continue. When you insert the next tape, allow it to rewind and reposition before you press **Enter**. Repeat this step for any additional tapes.

After the system completes the backup, the system displays the following message:

```
XXXXXXXX blocks
Tape Verification
Insert the first tape
Press Return to proceed:
```

Upgrading an Enterprise 3000 to CMS R3V9

9. Insert the first tape and press **Enter** to continue.

After the tape is verified, the system displays the following message:

```
End of medium on "input".  
Please insert tape number X and press Return
```

10. Remove the first tape and insert the second tape. After the tape rewinds and repositions, press **Enter** to continue. Repeat this step for each additional tape.

After the last tape is verified, the system displays the following message:

```
XXXXXXX blocks  
Please label the backup tape(s) with the date and the  
current CMS version (r3vXxx.x)
```

11. When the tape drive LED stops blinking, remove the tape. The CMSADM file system backup is complete.
12. Label all tapes with the tape number and the date of the backup. Set the write-protect switch on the tape to read-only.

CMSADM backup for R3V8

The CMSADM backup for R3V8 is not service affecting. The backup can be done at any time.

To do a CMSADM backup on an R3V8 system:

⚠ WARNING:

Verify that you are using the correct tape for the tape drive on your system. Many of the tape cartridges look alike, and using the wrong tape can damage the tape drive mechanism and tape heads.

1. Log on as root.
2. Enter :

```
cmsadm
```

The system displays the CMS Administration menu:

```
Call Management System Administration Menu

Select a command from the list below.
 1) acd_create  Define a new ACD
 2) acd_remove  Remove all administration and data for an ACD
 3) backup      Filesystem backup
 4) pkg_install Install a feature package
 5) pkg_remove  Remove a feature package
 6) run_pkg     Turn a feature package on or off
 7) run_cms    Turn CentreVu CMS on or off
 8) port_admin  Administer Modems, Terminals, and Printers
Enter choice (1-8) or q to quit:
```

3. Enter the number that corresponds to the backup option.

Depending on the configuration of your system, the system displays one of the following options.

- If only one tape drive is available on the system, the system displays the following message:

```
Please insert the first cartridge tape into <device name>.
Press ENTER when ready or Del to quit:
```

Continue with Step 5.

- If more than one tape drive is available for use by the system, the system displays a message listing the different tape drives.

Upgrading an Enterprise 3000 to CMS R3V9

4. Enter a tape drive selection from the displayed list.

The system displays the following message:

```
Please insert the first cartridge tape into <device name>.
Press ENTER when ready or Del to quit:
```

5. Press **Enter**.

The backup process begins. If more than one tape is required, the system displays the following message:

```
End of medium on "output".
Please remove the current tape, number it, insert tape number x,
and press Enter
```

6. If the system displays the message in Step 5, insert the next tape and allow it to rewind. When it is properly positioned, press **Enter**.
7. When the backup is completed, the system displays information according to the number of tapes that are required for the backup:

- If the number of tapes required is one, the system displays the following message:

```
xxxxxxx blocks
Tape Verification
xxxxxxx blocks
WARNING: A CMS Full Maintenance Backup in addition to this cmsadm
backup must be done to have a complete backup of the system. . .
. .

Please label the backup tape(s) with the date and the current CMS
version (R3V8xx.x)
```

Continue with Step 10.

- If the number of tapes required is more than one, the system displays the following message:

```
xxxxxxx blocks
Tape Verification
Insert the first tape
Press Return to proceed:
```

8. Insert the first tape to be used in the backup and press **Enter**. When the LED on the tape drive stops blinking, remove the tape.

Procedures that are done by the customer before the upgrade

9. When prompted, repeat Step 8 for any additional tapes generated by the backup process. When the final tape is verified, the program displays the following message:

```
xxxxxxx blocks
Tape Verification
xxxxxxx blocks
WARNING: A CMS Full Maintenance Backup in addition to this cmsadm
backup must be done to have a complete backup of the system. . .
. .

Please label the backup tape(s) with the date and the current CMS
version (R3V8xx.x)
```

10. Label all tapes with the:
 - Tape number
 - Date of backup
 - Current version of CMS
11. Set the tape write-protect switch to read-only.

Backing up Visual Vectors vector layouts and comments

Visual Vectors Server software provides backup and restore functions that allow you to save vector layouts and comments previously placed on the server from Visual Vectors client applications. The vector layout and comment files (**1** through **8**) are found in **/cms/aas/vector/layout** and **/opt/cc/aas/vector/layout**. You can skip this procedure if no vector layouts and comments were placed on the server or the upgraded server will not have the Visual Vectors Server software installed.

To backup Visual Vectors vector layouts and comments:

1. Insert a backup tape into the tape drive.

 **CAUTION:**

Do not use the CMSADM or maintenance backup tapes.

2. Enter:

```
cd /
```

3. Enter:

```
setupaas
```

The system displays the Visual Vectors System Services Menu.

```
Avaya Visual Vectors Server System Services Menu

Select a command from the list below.

    1) init_vvs      Setup the initial configuration
    2) run_vvs       Turn VVS on or off
    3) auth_display  Display simultaneous VVS logins
    4) auth_set      Change simultaneous VVS logins
    5) backup        Backup vector steps and layout files
    6) restore       Restore vector steps and layout files

Enter choice (1-6) or q to quit:
```

4. Enter the number associated with the backup option.

The system displays the following message:

```
Enter path to backup device (default: /dev/rmt/0)
```

5. Enter the path for the backup device.

Note:

The default device name is `/dev/rmt/0`. However, the device name used depends on the drive's SCSI ID. Possible device names are:

<code>/dev/rmt/0</code>	Indicates the first noncompressing tape drive with the lowest target address
<code>/dev/rmt/1</code>	Indicates the second noncompressing tape drive with the second lowest target address
<code>/dev/rmt/0c</code>	Indicates the first compressed-mode tape drive with the lowest target address
<code>/dev/rmt/1c</code>	Indicates the second compressed-mode tape drive with the second lowest target address

The system backs up the Visual Vectors vector layouts and comments, and then displays a message similar to the following:

```
Using X
  as backup device.
Starting backup of vector steps and layout files. Please wait...
Backup completed successfully.
Please remove tape and label it XXXXXXXXXXXX
```

Doing a full maintenance backup

A full maintenance backup provides migration data for the new CMS version. Do the backup the night before the upgrade. Backups are done using the CMS Backup Data window.

To do a full maintenance backup:

1. Log on to CMS.
2. Select **Maintenance > Back Up Data** from the CMS main menu.

The system displays the following for R3V6 and earlier:

```
3/ 9/01 17:29 CentreVu(R) CMS                               Windows: 1 of 4   vv^v vv
Maintenance: Backup Data                                   Dad11R6vpe
Backups completed today: 0                               | Cancel
Status: Last backup finished 03/07/2001 21:48:19.       | List devices
Errors:                                                  | Run
                                                         | Select tables
                                                         +-----+
Device name: default
Verify tape can be read after backup? (y,n): y

ACD(s) to back up (Select one):
<x> All ACDs
< > Current ACD

Data to back up (Select any you wish):
[x] System administration data
[x] ACD-specific administration data
[x] Historical data,
    Select one:
    <x> Full
    < > Incremental
[x] Non-CMS data
[ ] Specific tables

Help      Window  Commands  Keep      Exit      Scroll  Current  MainMenu
```


The system displays the following for R3V8:

```
3/ 9/01 18:43 CentreVu(R) CMS                               Windows: 1 of 4   ^vvvv^v^
Maintenance: Backup Data                                     hyena3g3v5e
Backups completed today: 0                                  | Cancel
Status:                                                     | List devices
Errors:                                                      | Run
                                                            | Select tables
                                                            +-----+

Device name: default
Verify tape can be read after backup? (y,n): y

ACD(s) to back up (Select one):
 <x> All ACDs  < > Current ACD

Data to back up (Select any you wish):
[x] Local system administration data
[x] CMS system administration data
[x] ACD-specific administration data
[x] Historical data,
    Select one:
      <x> Full  < > Incremental
[x] Non-CMS data
[ ] Specific tables

Help      Window  Commands  Keep          Exit      Scroll  Current  MainMenu
```

Upgrading an Enterprise 3000 to CMS R3V9

3. In the Backup Data window, select the options and enter the values that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Verify tape...?	y
ACD(s) to back up	All ACDs
Data to back up	For R3V6 and earlier: System administration data ACD-specific administration data Historical data - Full Non-CMS data (if needed) For R3V8: Local system administration data CMS system administration data ACD-specific administration data Historical data - Full Non-CMS data (if needed)

4. Press **Enter** to access the action list, and select **Run**.
5. After the backup is complete, remove and label the backup tape.

Doing an incremental maintenance backup

Do an incremental maintenance backup immediately before the upgrade. Backups are done using the CMS Back Up Data window.

To do an incremental maintenance backup:

1. Log on to CMS.
2. Select **Maintenance > Back Up Data** from the CMS main menu.

The system displays the following for R3V6 and earlier:

```

3/ 9/01 17:29 CentreVu(R) CMS                               Windows: 1 of 4   vv^v  vv
Maintenance: Backup Data                                     Dad11R6vpe
Backups completed today: 0                                  | Cancel
Status: Last backup finished 03/07/2001 21:48:19.         | List devices
Errors:                                                     | Run
                                                           | Select tables
                                                           +-----+
Device name: default
Verify tape can be read after backup? (y,n): y

ACD(s) to back up (Select one):
<x> All ACDS
< > Current ACD

Data to back up (Select any you wish):
[x] System administration data
[x] ACD-specific administration data
[x] Historical data,
    Select one:
      < > Full
      <x> Incremental
[x] Non-CMS data
[ ] Specific tables

Help   Window  Commands  Keep           Exit   Scroll  Current  MainMenu
    
```

Upgrading an Enterprise 3000 to CMS R3V9

The system displays the following for R3V8:

```
3/ 9/01 18:43 CentreVu(R) CMS                               Windows: 1 of 4   ^vvvv^v^
Maintenance: Backup Data                                     hyena3g3v5e
Backups completed today: 0                                  | Cancel
Status:                                                     | List devices
Errors:                                                      | Run
                                                            | Select tables
                                                            +-----+

Device name: default
Verify tape can be read after backup? (y,n): y

ACD(s) to back up (Select one):
 <x> All ACDs  < > Current ACD

Data to back up (Select any you wish):
[x] Local system administration data
[x] CMS system administration data
[x] ACD-specific administration data
[x] Historical data,
    Select one:
      < > Full  <x> Incremental
[x] Non-CMS data
[ ] Specific tables

Help   Window  Commands  Keep           Exit   Scroll  Current  MainMenu
```

3. In the Back Up Data window, select the options and enter the values that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Verify tape...?	y
ACD(s) to back up	All ACDs
Data to back up	<p>For R3V6 and earlier:</p> <p>System administration data ACD-specific administration data Historical data - Incremental Non-CMS data (if needed)</p> <p>For R3V8:</p> <p>Local system administration data CMS system administration data ACD-specific administration data Historical data - Incremental Non-CMS data (if needed)</p>

4. Press **Enter** to access the action list, and select **Run**.

5. After the backup is complete, remove and label the backup tape.

Checking for printer requests and large mail files

The CVUE extract process first copies the files that are being migrated to the new system to the **/var/tmp/new** directory, then copies the files to tape. If the system does not have enough disk space to create this first copy to **/var/tmp/new**, the system may run out of space and the extract will fail.

Before you continue with the upgrade, check the following directories for old print requests and large, unneeded mail files that may be taking up space:

- **/var/spool/lp/requests**
- **/var/mail/root**
- **/var/mail/root2**
- **/var/mail/cms**

Delete any unneeded files.

Checking for nonsequential ACDs

The CVUE tool cannot upgrade systems that have a series of ACDs that are not in sequential order. For example, if a system has ACD1, ACD2, ACD4, and ACD5, it is missing ACD3 and cannot be upgraded until you add a temporary ACD to fill the gap.

To determine if the system has nonsequential ACDs:

1. Log on to CMS.
2. Do one of the following:
 - Select **System Setup > Switch Setup > List All** to display a list of the administered ACDs. This list will show if there are any gaps in the administered ACDs.
 - On the upper right corner of the CMS Main Window, the status of the ACDs are displayed with up arrows and down arrows (for example, $\wedge\vee\wedge\vee$). If the display shows a series of ACDs with one ACD missing (for example, $\wedge\vee$ $\wedge\vee$ shows that ACD3 is missing because there is a space), you must add a temporary ACD before you begin the upgrade. Note which ACDs were up and which were down to see that they are returned to the same state after the upgrade.
3. To add a temporary ACD:
 - a. Enter:

```
cmsadm
```
 - b. Select the number that corresponds to the **acd_create** option.
This adds the next unassigned ACD.
 - c. Enter the switch name and switch model, enable vectoring, enable disconnect supervision, and enter **1** for the local port and the remote port.
 - d. When you select a link device, use either TCP/IP with an invalid IP address, or X.25 and select one of the loopback links. Since the ACD is deleted after the upgrade, it is acceptable to assign an invalid IP address or a loopback link.
 - e. For the remaining options, use the defaults or minimum values.
 - f. Repeat these steps for any other ACDs that are missing.

Collecting third-party and custom software

If third-party and custom software is installed on the system, the customer must collect the software so that it will be available for installation after the upgrade. This can include software such as Internet Call Center and Visual Vectors.

Upgrading the system

Overview

Use the following checklist when upgrading a CMS computer.

Procedure	Completed
Inventory the CVUE kit. Make sure that the CVUE Upgrade Tool CD version is compatible with the boot disk drive.	
If the customer ordered Informix SQL (ISQL), locate the ISQL software CD-ROM.	
Verify that the customer completed the preupgrade procedures.	
Obtain the current CMSSVC password.	
Extract the customer's administration and options.	
Remove and replace the disk drives.	
Copy and activate the customer's administration and options.	

 **CAUTION:**

It is highly recommended that customers do NOT reuse their old disk drives as part of the upgrade procedure. These old disk drives should be saved for system recovery if any problems arise during the upgrade procedure.

Extracting the customer's administration and options

To minimize the time that the system is out of service during the upgrade, you can extract the customer's administration and options while the system is operating, but do not allow the customer to make any administration changes while you are performing this procedure.

Note:

When the upgrade is being supported by remote personnel, such as CMS Provisioning, the system commands in this section are for use by remote personnel to monitor the progress of the upgrade. Run the commands from the local console only when instructed to do so, or when there is no remote support.

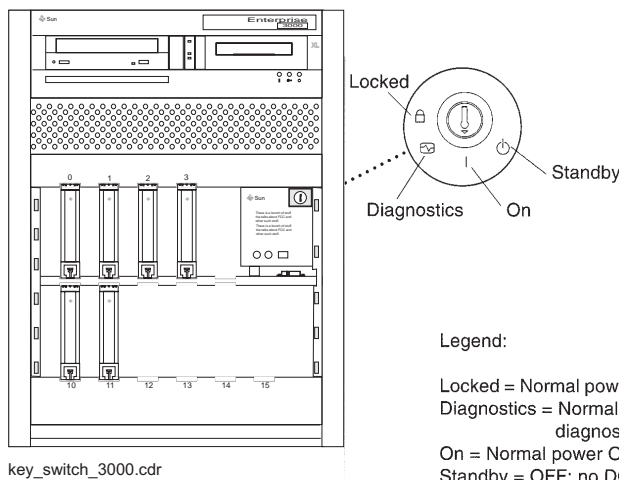
To extract the customer's administration and options:

1. For the tape being used with the upgrade, check for the following:
 - Make sure that you are using the correct tape.
 - Make sure that the tape is not write-protected.
2. Label the blank tape as "CVUE Extract," and insert the tape into the tape drive.

! Important:

If the system has more than one tape drive, the CVUE program defaults to the tape drive that has a tape installed and that has the lowest SCSI ID. To help prevent using the wrong tape drive, remove the tapes from any other tape drives.

3. Document the original position of the key switch. You must return the key switch to this original position later during the upgrade.
4. If the key switch is in the "Locked" or "Diagnostics" position, move the key switch to the vertical "On" position. See the following figure.



5. Log on as root.

6. Enter:

```
cd /
```

7. Load the CVUE Upgrade Tool CD.

The File Manager window may open. Move and click the cursor in an XTERM window.

8. After waiting about 15 seconds, enter `mount` to verify that the CD is detected.

The system displays a list of devices and file systems that are currently mounted. The final line should show `/cdrom/cvue`.

9. Enter the following commands:

```
cd /cdrom/cdrom0
```

```
./cvue_extract
```

The extract process begins. To track the progress of the extract command from a different XTERM window, or from a remote or local terminal, use the following command:

```
tail -f /var/tmp/new/var/log/cvuelog
```

The system displays several messages as shown in the following example:

```
Using /var/tmp/new as temporary directory.  
CVUE VERSION: vXcvueXX.X  
Current CMS version is: r3vXxx.x
```

10. The CVUE tool next checks the tape and the tape drive. The system determines if the tape is defective, write-protected, or not compatible with the tape drive. The system displays the following message:

```
Testing tape on /dev/rmt/X
```

11. Depending on what the system determines about the tape and tape drive, one of the following occurs:

- If the tool determines that the tape and tape drive are operational, the system does not display any error messages, and the upgrade continues with Step 12.

Upgrading an Enterprise 3000 to CMS R3V9

- If the tool determines that the tape or tape drive are not operational, the system displays the following message:

```
Tape test failed!! Could not write and then read a file
from the tape at /dev/rmt/X.
Check the following items for possible problems:
  Verify the tape is not write-protected
  Verify the correct type of tape is in the tape drive
  Verify the tape is not defective
```

Make sure the tape is not write-protected and is the correct tape for the tape drive.
Try a different tape and start over with Step 1.

12. The CVUE tool next runs the CMS converter tool. The system displays the following message:

```
Admin data will be spooled to /dev/rmt/X
.
.
Converter completed successfully. <timestamp>
Converter completed successfully.
```

13. The CVUE tool next checks to see if any of the ACD switch links use X.25. One of the following happens:

- If no X.25 switch links are found, the upgrade continues with Step 14.
- If at least one X.25 switch link is found, the system displays the following message:

```
CVUE found that some ACDs use X.25 for the switch link. If X.25
will continue to be used for ACD switch links after the upgrade,
CMS R3V9 requires that the customer purchase a new license. If
all switch links will be converted to TCP/IP after the upgrade,
purchase of a new license is not required. To continue, enter
(y) if the customer agrees to purchase or has purchased a new
X.25 license, or if the switch links will be converted to TCP/IP
(entering (n) will stop the upgrade) (y/n):
```

If you answer **y**, the upgrade continues and the new X.25 license will be installed. If you answer **n**, the upgrade stops and you must resolve the license issue.

14. The CVUE tool next checks the current version of Solaris and displays the following message:

```
The current version of Solaris on the system is X.X.X
It will be replaced with Solaris 5.8 as a part of upgrade
Please wait as admin files are extracted..
.....
```

Extracting the administration files will take several minutes.

15. The CVUE tool next checks to see if ISQL software version 7.20.UC1 is currently installed on the system. One of the following happens:
- If ISQL version 7.20.UC1 is currently on the system, it is automatically installed as part of the upgrade. Continue with Step 16.
 - If an older, incompatible version of ISQL version is installed, or if ISQL is not currently installed, the system displays the following message:

```
Has ISQL been purchased for this upgrade (y or n)?
```

Continue with Step 17.

16. The extract process continues, and the system displays the following message:

```
Your current version of ISQL is 7.20.UC1.
ISQL will be installed.
```

Continue with Step 18.

17. Do one of the following:
- If ISQL was purchased as part of the upgrade, the ISQL CD is included in the upgrade kit. If the CD is in the kit, enter **y**. Enter the serial number and key number printed on the CD. This is an optional package and can only be installed if the customer has purchased the software. After entering the serial number and key number, the system displays the following message:

```
ISQL will be installed.
```

When entering the serial number and key, you have three attempts to successfully enter this information. After the third attempt, the installation of ISQL is skipped, but the extract process continues with Step 18.

Upgrading an Enterprise 3000 to CMS R3V9

- If ISQL was not purchased as part of the upgrade, enter **n**. If you enter **n**, ISQL is not installed and the system displays the following message:

```
ISQL will not be installed as part of upgrade
```

The CVUE upgrade continues with Step 18.

18. The system displays the following message:

```
Supplemental Services cssxXxx.x will be installed.  
Network Terminal Server R10.0B will be installed.  
. .
```

19. The CVUE tool next checks to see if ODBC version 3.0 or 3.2 is currently installed on the system. One of the following happens:

- If ODBC version 3.0 or 3.2 is currently on the system, version 3.2 is automatically installed as part of the upgrade. Continue with Step 20.
- If ODBC is not installed, or if the current version is older than version 3.0, ODBC is not installed. The system displays the following message:

```
Note: CVUE has found that ODBC software is not installed on  
current CMS system.  
No ODBC software will be installed on upgraded CMS system.
```

If the customer purchased ODBC for CMS R3V9, the software must be installed after the upgrade is complete. Continue with Step 21.

20. The extract process continues, and if ODBC is to be installed, the system displays the following message:

```
ODBC Version 3.2 will be installed.
```

21. The CVUE tool next checks to see if the ACDs are administered in sequential order. That is, ACD1, ACD2, ACD3, and so on with no gaps. Depending on what the tool finds, do one of the following:

- If the system does not display an error message, the ACDs are in sequential order, and the process continues with Step 23.

- If the system displays the following error message, the ACDs are not in sequential order, and you must add one or more temporary ACDs using the commands shown in Step 22:

```
ERROR: The following ACDs are not currently administered: x,x.
CVUE cannot upgrade when ACDs are not sequentially numbered.
Please run cmsadm, add the missing ACDs, then run
"./cvue_extract" again.
#
```

22. To add a temporary ACD:

- a. Enter:

```
cmsadm
```

- b. Select the number that corresponds to the **acd_create** option.

This adds the next unassigned ACD.

- c. Enter the switch name and switch model, enable vectoring, enable disconnect supervision, and enter **1** for the local port and the remote port.
- d. When you select a link device, use either TCP/IP with an invalid IP address, or X.25 and select one of the loopback links. Since the ACD is deleted after the upgrade, it is acceptable to assign an invalid IP address or a loopback link.
- e. For the remaining options, use the defaults or minimum values.
- f. Repeat these steps for any other ACDs that are missing.
- g. Return to Step 9 and start the extract process again.

23. The system displays the following messages:

```
CMS default backup device will be checked.
Sendmail permissions will be fixed.
Serial printers will be administered
.
.
Merging cvue_file_properties with cvuelog
```

The properties of the files being preserved are written to the **/var/log/cvuelog** file on the new system. This information is used later to compare the preserved file properties with the file properties on the new system.

24. The system may display messages similar to the following:

```
Copying admin to tape.  
  
103346-XX not needed because version -XX is already installed  
  
Exiting spatches/install/install_eeprom
```

These last two messages show that the OpenBoot PROM (OBP) is being checked. If the system finds that the OBP version is out of date, a script is created to upgrade to the correct version.

25. The system displays the following message:

```
.  
.  
The cvue_extract process is complete.  
#
```

26. Enter:

```
pg /var/tmp/new/var/log/cvuelog
```

This displays the temporary CVUE log file. Check for failure messages (FAIL) or other indications that the extract process did not successfully complete. This file also contains a list of files that are being copied to the new system. The list of files may be useful for later troubleshooting.

27. Remove the tape, set the write-protect switch on the tape to read-only, and reinsert the tape.

28. Enter:

```
/usr/sbin/shutdown -y -i0 -g0
```

This shuts down the computer. The system displays the `ok` prompt.

29. Turn the power switch on the CMS computer to off, and turn off the power to any external SCSI disk drives and tape drives.

30. Continue with [Removing and replacing Enterprise 3000 disk drives](#) on page 39.

Removing and replacing Enterprise 3000 disk drives

Overview

This section contains the procedures that are required to upgrade the disk drives in an Enterprise 3000 computer to CMS R3V9.

These procedures require you to remove the old disk drives in the computer, and replace them with new disk drives that are preloaded with the CMS R3V9 software. Depending on the amount of disk space that is required by the customer, you will install from 1 to 10 new disk drives.

 **CAUTION:**

It is highly recommended that customers do NOT reuse their old disk drives as part of the upgrade procedure. These old disk drives should be saved for system recovery if any problems occur during the upgrade procedure.

Disk upgrade procedures

The disk upgrade process consists of the following procedures:

1. Removing and labeling the old disk drives

 **CAUTION:**

All old disk drives must be removed from the customer's system and replaced with the disk drives from the CVUE kit. Do not leave any old disk drives in the system.

2. Installing the new disk drives
3. Booting up the system with the new disk drives
4. Verifying that the system recognizes the new disk drives
5. Checking the status of the disk drives and tape drives
6. Verifying that the upgrade can continue

Removing and labeling the old disk drives

To remove the existing disk drives from an Enterprise 3000 computer:

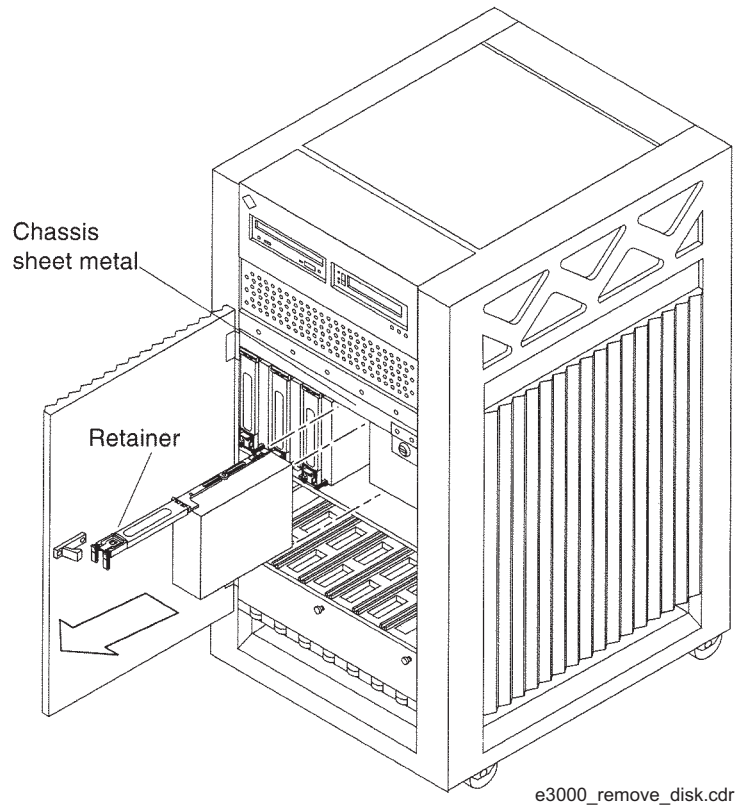
1. If you have not already done so, enter the following command to shut down the computer:

```
/usr/sbin/shutdown -y -i0 -g0
```

2. Turn off the power to the computer using the key switch on the front of the computer and the power switch on the back of the computer.
3. For ESD isolation, verify that the AC power cord is plugged in.

Upgrading an Enterprise 3000 to CMS R3V9

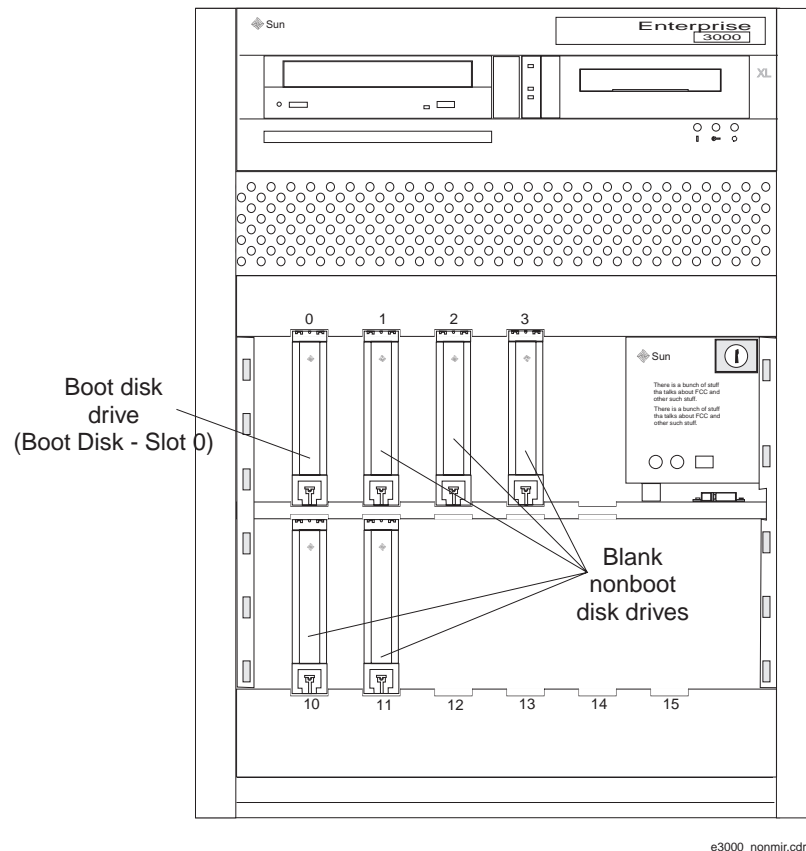
4. Open the front door of the system.
5. Attach an ESD wrist strap to the metal chassis of the computer and to your wrist.
6. While the original disk drives are still in the computer, use the colored labels from the upgrade kit to label each disk drive with the slot number. Save the old disk drives in case you have to reinstall the original configuration.
7. Unlatch the disk drive retainer. Use the extended retainer as a handle. See the following figure.



8. While grasping the retainer, press your thumb on the sheet metal of the chassis that is directly above the disk drive to be removed. This allows for smoother release of the disk drive from the connector on the drive.
9. Pull on the retainer to slide the disk drive out of the chassis.
10. Repeat this procedure for each disk drive that is installed.

Installing the new disk drives

You have one boot disk drive, and up to nine optional nonboot disk drives. The boot disk drive must be installed in Slot 0, which is on the top shelf. The optional nonboot disk drives must be installed in Slots 1 through 3 and 10 through 15, consecutively. See the following figure.



To install the new disk drives:

1. Attach an ESD wrist strap to the metal chassis of the computer and to your wrist.
2. Install the boot disk drive in Slot 0. This disk is labeled "Boot Disk - Slot 0."
3. If the customer ordered one or more of the optional nonboot disk drives, install them in Slots 1 through 3 and 10 through 15. Do not skip any slots.
4. Disconnect the ESD wrist strap.
5. Continue with [Booting up the system with the new disk drives](#) on page 42.

Booting up the system with the new disk drives

Note:

When the upgrade is being supported by remote personnel, such as CMS Provisioning, the system commands in this section are for use by remote personnel to monitor the progress of the upgrade. Run the commands from the local console only when instructed to do so, or when there is no remote support.

To boot up the system with the new disk drives:

1. Turn on all external SCSI devices, starting with the device farthest from the system and working toward the system.
2. Turn on the system monitor.
3. Turn on the system. Return the key switch to the position that was used by the customer before the upgrade was started.
4. Close the front door of the system.

The system begins to boot up. If the boot fails, turn off the power to the computer and check all device cabling. Cycle power on all external devices.

The power LEDs on the SCSI drives will light. Note that during boot-up, you might see error messages concerning hardware for which software is not yet installed. This will be corrected later in the upgrade procedure when the customer's options are installed.

5. After the system reboots, log in as root.
6. If prompted for a password, press **Enter**. (At this point in the upgrade, there is no password.)
7. If using the CMS console on site, open an XTERM window if one is not displayed. Move the cursor into the window and click the left mouse button to activate that window.
8. Continue with [Verifying that the system recognizes the new disk drives](#) on page 43.

Verifying that the system recognizes the new disk drives

You must next verify that the system recognizes the new disk drives.

To verify that the system recognizes the new disk drives:

1. Enter:

```
format
```

The system displays a message similar to the following:

```
Searching for disks...done

AVAILABLE DISK SELECTIONS:
  0. c0t0d0 <SUN18G cyl 7506 alt 2 hd 19 sec 248>
     /sbus@X,0/SUNW,fas@3,8800000/sd@0,0
  1. c0t1d0 <SUN18G cyl 7506 alt 2 hd 19 sec 248>
     /sbus@X,0/SUNW,fas@3,8800000/sd@1,0
  2. c0t2d0 <SUN18G cyl 7506 alt 2 hd 19 sec 248>
     /sbus@X,0/SUNW,fas@3,8800000/sd@2,0
Specify disk (enter its number):
```

The message displays the number of disks recognized by the system. This example shows a system with three disks. The number of disks that are installed on the system must match the number that is shown with the **format** command.

2. Enter: 0
3. Enter: q
4. Continue with [Checking the status of the disk drives](#).

Checking the status of the disk drives

To check the status of the disk drives:

1. Enter:

```
. /opt/informix/bin/setenv
```

2. Enter:

```
onstat -d | egrep "X" | pg
```

The system should not display anything except the command prompt. If any lines display **NX**, the disk requires maintenance. Escalate through normal channels.

3. Enter:

```
metadb -i
```

The system displays a message similar to the following:

flags	first blk	block count	
a m p luo	16	1034	/dev/dsk/c0t0d0s1
a p luo	1050	1034	/dev/dsk/c0t0d0s1
a p luo	2084	1034	/dev/dsk/c0t0d0s1
a p luo	3118	1034	/dev/dsk/c0t0d0s1

This command shows the database replicas. There should be four replicas for the boot disk. If the correct number of replicas are not shown, escalate using the normal channels.

4. Continue with [Checking the status of the tape drives](#).

Checking the status of the tape drives

To check the status of the tape drives:

1. Enter:

```
ls -x /dev/rmt
```

The system displays a list of the current tape device modes for each installed tape drive. If there is only one tape drive, a series of files starting with 0 is displayed. The following example shows a series of files starting with 0. This indicates that there is one tape drive installed on the system.

0	0b	0bn	0c	0cb	0cbn	0cn	0h	0hb	0hbn	0hn	0l	0lb
0lbn	0ln	0m	0mb	0mbn	0mn	0n	0u	0ub	0ubn	0un		

2. Note whether or not the number of tape drives that is displayed matches the number of tape drives that are connected to the system.
3. Continue with [Verifying that the upgrade can continue](#).

Verifying that the upgrade can continue

To continue with the upgrade, do one of the following:

- If the disk drive and tape drive status is correct, continue with [Copying and activating the customer's administration and options on page 46](#).
- If the disk drive and tape drive status is not correct, do the following:
 - a. Enter the following commands. These commands shut down the system and force a reconfiguration the next time that the system boots.

```
cd /  
  
touch /reconfigure  
  
/usr/sbin/shutdown -y -i0 -g0
```
 - b. Turn off the system.
 - c. Turn off the system monitor.
 - d. Turn off any external SCSI devices starting with the device that is closest to the system and working toward the farthest device.
 - e. Check all device cables. Cycle power on all external devices.
 - f. Restart with [Verifying that the system recognizes the new disk drives](#) on page 43. If the number of disks and tape drives still do not match, escalate through normal channels.

Copying and activating the customer's administration and options

Overview

After you verify the new configuration, do the following:

- Install CMS patches.
- Copy the customer's data from the extract tape onto the system.
- Activate the customer's options.
- Shut down and reboot the system.
- Remove any temporary ACDs that you created during the extraction phase of the upgrade process.
- Verify CMS permissions.
- Turn on CMS.
- Verify that CMS is operating.
- Check Free Space Allocation (FSA).
- Compare directory and file permissions.
- Update the switch setup.
- Set the Informix configuration parameters.
- Remove the upgrade files.
- Migrate the customer's data.
- Replace the customer's tapes in the tape drives.

Note:

When the upgrade is being supported by remote personnel, such as CMS Provisioning, the system commands in this section are for use by remote personnel to monitor the progress of the upgrade. Run the commands from the local console only when instructed to do so, or when there is no remote support.

Installing CMS patches

If the new CMS load has any patches, those patches must be installed on the system. These patches are on the CentreVu CMS software CD, not the CVUE Upgrade Tool CD. The CentreVu CMS software CD is included in the CVUE upgrade kit.

If there are patches on the CMS software CD, it will be labeled similar to “CMS Patch Issue 2,” for example. If there are no patches on the CD, continue with [Copying customer data](#) on page 49.

If the CMS software CD does have patches, continue with this procedure.

To install CMS patches:

1. Enter:

```
cd /
```

2. Enter:

```
eject cdrom
```

3. Remove CVUE Upgrade Tool CD. Save the CD for when you remove the upgrade files.

4. Load the CentreVu CMS software CD.

The File Manager window will open. Move and click the cursor in an XTERM window.

5. After about 15 seconds, enter:

```
cmssvc
```

The system displays the CMS services menu.

6. Enter the number that corresponds to the `load_all` option.

7. One of the following occurs:

- If no patches are found on the CD, the system displays the following message:

```
No CMS patches found on the CD.  
Please check the CD and try again.
```

Continue with Step 9.

- If patches are found on the CD-ROM, the system displays a list of the patches.

Upgrading an Enterprise 3000 to CMS R3V9

8. To load all patches, enter: **y**

The system installs the patches. As it does so, it displays a message similar to the following for each patch installed:

```
@(#) installpatch 1.0 96/04/01
cmspx-s
Generating list of files to be patched...
Creating patch archive area...
Saving a copy of existing files to be patched...
xxxx blocks
      File compression used
Installing patch packages...

Doing pkgadd of cmspx-s package:
Installation of cmspx-s was successful.

Patch packages installed:
      cmspx-s

Patch installation completed.

See /cms/patch/cmspx-s/log for more details
```

9. After all patches are installed, or if there are no patches on the CD, enter:

eject cdrom

10. Continue with [Copying customer data](#).

Copying customer data

To copy the customer's data from the CVUE backup tape onto the system:

1. Verify that the customer's "CVUE Extract" tape is write-protected and is inserted in the correct tape drive. Remove tapes from any other tape drives connected to the system.
2. Load the CVUE Upgrade Tool CD.

The File Manager window will open. Move and click the cursor in an XTERM window.

3. After about 15 seconds, enter:

```
cd /cdrom/cdrom0
```

4. Do one of the following:

- If running the command locally at the console, enter:

```
./cvue_copy
```

- Optionally, if running the command remotely on a dial-up line, enter:

```
nohup ./cvue_copy | tee /nohup.out
```

CAUTION:

If the dial-up modem line drops after starting this command with `nohup`, reconnect to the system, but **DO NOT** rerun this command. Use `tail -f /nohup.out` to view the progress of the command. When finished viewing the **nohup.out file**, press **Del** to break out of the command.

During the copy process, the status lamp on the tape drive flashes, and the system displays a list of files being copied:

```
Reading admin data from /dev/rmt/X
.
.
```

When the copy process is completed, the system displays the following message:

```
The cvue_copy process is complete...Tue Jan 16 12:36:15 EST 2001
#
```

5. Continue with [Activating customer options](#).

Important:

Do not open any new windows on the local console. Do not eject the CD.

Activating customer options

The activate process can take from as little as a few minutes to as much as 1 to 2 hours to complete. The amount of time depends on the number of customer options, the number and size of the disk drives, the number of ACDs, and so on.

To activate the customer's software options:

1. Enter:

```
cd /cdrom/cdrom0
```

2. Do one of the following:

- If running the command locally at the console, enter:

```
./cvue_activate
```

- Optionally, if running the command remotely on a dial-up line, enter:

```
nohup ./cvue_activate | tee /nohup.out
```

CAUTION:

If the dial-up modem line drops after starting this command with **nohup**, reconnect to the system, but **DO NOT** rerun this command. Use **tail -f /nohup.out** to view the progress of the command. When finished viewing the **nohup.out file**, press **Del** to break out of the command.

For On Site Personnel: If the upgrade is being supported by remote personnel (for example, provisioning), use the following command from the local console during the copy and activate process to view the CVUE log file and track the progress of the upgrade:

```
tail -f /var/log/cvuelog
```

When finished viewing the **/var/log/cvuelog** file, press **Del** to break out of the command.

3. One of the following occurs:

- If the CVUE copy was not done, the system displays the following message and you must run CVUE copy again:

```
cvue_copy not successful, run the cvue_copy again
```

- If the CVUE copy completed successfully, the system begins activating the customer's options. The system displays messages such as the following:

```
CVUE VERSION: v9cvueXX.X
..
S00Sethostname Start Time -> Tue Jan 16 12:48:45 EST 2001
S00Sethostname End Time -> Tue Jan 16 12:48:45 EST 2001
S00install_sql Start Time -> Tue Jan 16 12:48:45 EST 2001
.
.
```

The system continues activating the customer's options. The system displays messages such as the following to show that serial printers are readministered (network printers must be readministered after the upgrade):

```
.
.
S12AdministerPrinters Start Time -> Tue Jan 16 12:51:07 EST 2001
S12AdministerPrinters End Time -> Tue Jan 16 12:51:08 EST 2001
.
.
```

The system continues activating the customer's options. The system displays messages such as the following:

```
.
.
S70converter End Time -> Tue Jan 16 12:51:45 EST 2001
S80cmssetup Start Time -> Tue Jan 16 12:51:53 EST 2001
CMS setup started Tue Jan 16 12:51:53 EST 2001
Schema updated started Tue Jan 16 12:52:13 EST 2001
.
.
```

If you are looking at the `/var/log/cvuelog` file during CMS setup (the `S80cmssetup` script), you may see failure messages about the SQL database. These messages can be ignored. CMS setup takes several minutes to complete.

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The system continues activating the customer's options. The system displays messages such as the following:

```
.
.
Customer CMS data successfully initialized <timestamp>
.....
Computing space requirements and dbspace availability.

Setup completed successfully.

S80cmssetup End Time -> Tue Jan 16 13:03:08 EST 2001
.
.
```

The system continues activating the customer's options. The system displays messages such as the following:

```
.
.
S81cmsfeatpkg Start Time -> Tue Jan 16 13:03:08 EST 2001

S81cmsfeatpkg End Time -> Tue Jan 16 13:03:09 EST 2001
.
.

S99instUSProvisioning Start Time -> Tue Jan 16 13:04:15 EST 2001
Copying Provisioning upgrade files to /usr/spool/uucppublic

S99instUSProvisioning End Time -> Tue Jan 16 13:04:37 EST 2001
The cvue_activate process is complete.
Prompting user to shutdown.
To complete the cvue_activate process a reboot is required with
the following command: /usr/sbin/shutdown -y -i0 -g0

cvue#
```

4. When the system displays the command prompt, and if no error messages are displayed, enter:

```
ls -l /adminsave/init.d
```

The system displays a message similar to the following:

```
total 0
-r2-r--r--      1  root      other          0  May  2  12:20  0
```

If there are no *SXXscriptname* files in this directory, the activate process was successful. Ignore any zero-length or *jvp* files in the directory.

5. Continue with [Shutting down and rebooting the system](#).

⚠ CAUTION:

If you receive an error message, such as the following, a failure occurred in one of the installation scripts. Note the name of the script (in this example, `install_saip`) and see [Troubleshooting upgrade failures](#) on page 65 to recover from this error.

```
ERROR[1]: FUNCTION install_saip() FAILED at Thu Jul 13 12:54:23 MDT 2000
script /adminsave/init.d/S04install_saip failed
```

Shutting down and rebooting the system

To shut down and reboot the system:

1. Enter:

```
/usr/sbin/shutdown -y -i0 -g0
```

The system displays the `ok` prompt.

2. Enter the following command at the `ok` prompt:

```
copy-clock-tod-to-io-boards
```

The system displays the `ok` prompt.

3. Enter:

```
boot
```

This reboots the system and brings up the switch links. Ignore any warning messages.

4. Log on as root using the original password for the old system.
5. If using the CMS console on site, open an XTERM window if one is not displayed. Move the cursor into the window and click the left mouse button to activate that window.
6. Remove the “CVUE Extract” tape. This tape can be reused by the customer as a backup tape.
7. Continue with [Verifying the status of the disks](#).

Verifying the status of the disks

After the system boots up, you must check the status of the disks.

1. Enter:

```
. /opt/informix/bin/setenv
```

2. Enter:

```
onstat -d | egrep "X" | pg
```

The system should not display anything except the command prompt. If any lines display, the disk requires maintenance. Escalate through normal channels.

3. Continue with [Removing temporary ACDs](#).

Removing temporary ACDs

If you created one or more temporary ACDs during the extract process of the upgrade, you must now remove those ACDs. If you did not add any temporary ACDs, continue with [Verifying CMS permissions](#).

To remove a temporary ACD:

1. Enter:

```
cmsadm
```

The CMS Administration menu displays.

2. Enter the number that corresponds to the `acd_remove` option.

3. Enter the ACD number to remove.

The system displays a warning message.

4. Enter: `y`

5. Continue with [Verifying CMS permissions](#).

Verifying CMS permissions

To verify that the CMS permissions were preserved during the upgrade:

1. Enter:

```
pkgchk -n cms
```

Correct any problems with CMS permissions that are displayed.

2. Continue with [Turning on CMS](#).

Turning on CMS

To turn on CMS:

1. Enter:

```
cmsadm
```

The CMS Administration menu displays.

2. Enter the number that corresponds with the `run_cms` option.
3. Enter 1 to turn on CMS.
4. Continue with [Verifying that CMS is operating](#).

Verifying that CMS is operating

To verify that CMS is operating properly:

1. Enter:

```
su - cms
```

The system displays the `$` prompt.

2. Enter:

```
cms
```

Ignore any messages about backups.

3. Display the CMS main window to verify that the status of the switch links before the upgrade match the status of the switch links after the upgrade. That is, if a switch link was operating before the upgrade, it should be operating after the upgrade. If a switch link that should be operating is not, make sure that data collection is turned on.
4. Continue with [Checking Free Space Allocation](#).

Checking Free Space Allocation

To check Free Space Allocation:

1. Go to the Free Space Allocation window that is located in the CMS System Setup subsystem.
2. Verify that the amount of available space is positive for each ACD and make any necessary adjustments.

For more information about Free Space Allocation, see *CentreVu Call Management System R3V9 Administration*, 585-214-015.

Example:

In the Free Space Allocation window shown below, ACD 8 has negative space available.

```
System Setup: Free Space Allocation
Enter Dbspace name:
Data timestamp: 2/20/01 8:48 AM
(NOTE: All sizes are in Kbytes)
Total Free Space: 1279970

Dbspace      Current      Allocated      Available      Space used
Name         Size         Size            Space         to Date
acd1         2560000     1025211        1534789       48604
acd2         1792000     1126820        665180        55702
acd3         1792000     707140         1084860       16822
acd4         2048000     1191761        856239        67944
acd5         2560000     1088367        1471633       75680
acd6         3584000     1494316        2089684       15596
acd7         2304000     1000466        1303534       24372
acd8         2560000     10080557       (7520557)     21956

Successful
Help Window Commands Keep Exit Scroll Current MainMenu
```

If the **Total Free Space:** field shows that there is not enough space available to make the adjustment it will be necessary to modify Data Storage Allocation or add an additional hard drive.

3. Log out of CMS.
4. At the \$ prompt, enter:
`exit`
5. Continue with [Comparing directory and file permissions](#).

Comparing directory and file permissions

After you activate the new system, you should verify that the directories and files copied over from the old system retain the same permissions, or that the new permissions are acceptable. The system can compare the permissions of the directories and files.

Because comparing the file permissions may take a long time (30 minutes or more), you may want to run this command in the background so you can continue with other CVUE upgrade procedures.

To compare directory and file permissions:

1. Enter:

```
cd /cdrom/cdrom0
```

2. Enter:

```
./verify_fileproperties
```

To run this command in the background, enter:

```
nohup ./verify_fileproperties /nohup.out&
```

This begins the comparison of the directory and file permissions.

3. After the command is finished, the system displays the following message:

```
See /var/log/cvue_file_diff for differences
#
```

4. To view the permission differences after the command is finished, enter:

```
pg /var/log/cvue_file_diff
```

The file permission differences are displayed. If any file permissions are not appropriate, correct those discrepancies. Any files that are found only on the new system are identified as such and should not be changed.

5. To check the progress of the comparison command while it is still executing, enter:

```
tail -f /var/log/cvue_file_diff
```

Messages display directory and file permission differences as they are found. Press **Del** to break out of viewing the file.

6. Continue with [Updating the switch setup](#).

Updating the switch setup

In many cases, the switch is upgraded to a new release when the CMS is upgraded with CVUE. In addition, the links from the switch to the CMS may need conversion from X.25 to TCP/IP. If either of these happen, you must do the following:

- Readminister each ACD on the CMS using the `swsetup` option of the `cmssvc` command. CMS must be turned off to administer the ACDs. Remember to turn CMS on after setting up the ACDs. Readministering the ACDs includes converting the link from X.25 to TCP/IP, if appropriate. For more information about converting links, see *CentreVu CMS Switch Connections, Administration, and Troubleshooting*, 585-215-876.

Note:

While you have CMS turned off, you can save time by [Setting the Informix configuration parameters](#) at the same time.

- Readminister the CMS version on the switch using the Customer Options form. This change requires superuser permissions. Contact your technical support organization or your COE for assistance.
- Check the switch links on the CMS main window and verify that the switch links are up.
- If the conversion from X.25 to TCP/IP involves adding another network card to the CMS computer, this must be done after the CVUE upgrade is completed.

Continue with [Setting the Informix configuration parameters](#).

Setting the Informix configuration parameters

The Informix Dynamic Server (IDS) parameters for CMS must be adjusted to optimize system performance. Adjusting these parameters allows the system to fully utilize additional processors and memory.

Note:

During this procedure, both CMS and IDS must be turned off.

To adjust the IDS parameters, see the section *Setting the Informix configuration parameters for CMS* in the chapter *Installing CMS and Supporting Software of CentreVu CMS R3V9 Software Installation, Maintenance, and Troubleshooting*, 585-215 956.

Continue with [Removing the upgrade files](#).

Removing the upgrade files

The files used for the upgrade must be removed.

To remove the upgrade files:

1. Enter:

```
cd /cdrom/cdrom0
```

2. Do one of the following:

- If running the command locally at the console, enter:

```
./cvue_cleanup
```

- Optionally, if running the command remotely on a dial-up line, enter:

```
nohup ./cvue_cleanup | tee /nohup.out
```

CAUTION:

If the dial-up modem line drops after starting this command with `nohup`, reconnect to the system, but **DO NOT** rerun this command. Use `tail -f /nohup.out` to view the progress of the command. When finished viewing the `nohup.out` file, press **Del** to break out of the command.

Note that since the number of files to remove is large, this procedure takes several minutes to complete. When the files are removed, the system displays the following message:

```
The cvue_cleanup process is complete...Wed Aug 23 13:56:00 MDT 2000
#
```

3. Enter:

```
cd /
```

4. Enter:

```
eject cdrom
```

5. Remove the CVUE Upgrade Tool CD. Save the CD with the other customer software in case you have to run the upgrade tool again.

6. Continue with [Migrating the customer's data](#).

Migrating the customer's data

The following customer data must be migrated from the backup tapes:

- System administration data
- Agent and call center administration data

Migrating system administration data

 **CAUTION:**

Perform this step only once. Attempting to migrate system administration data more than once causes catastrophic errors from which you are unable to recover. Failure to heed this warning may irretrievably destroy data.

To migrate the system administration data:

1. If CMS is not turned on, do the following:
 - a. Enter:

```
cmsadm
```

The CMS Administration menu displays.
 - b. Enter the number for the `run_cms` option.
 - c. Enter 1 to turn on CMS.
2. Log on to CMS.
The system displays the CMS main window.
3. From the CMS main menu, select `system Setup > CMS state` to put CMS into single-user mode.
4. Insert the most recent incremental maintenance backup tape into the tape drive.

5. From the CMS Main Menu, select **system Setup > R3 Migrate Data**.

The system displays the following:

```

3/ 9/01  21:19  CentreVu(R) CMS                               Windows: 1 of 4  vvvv^vvv

System Setup: R3 Migrate Data                                All ACDs
                                                           | Cancel
Device name: default                                       | List devices
                                                           | Run
                                                           +-----+
Data type (Select one):
  <x> System Administration data (single-user required)
  < > Agent/Call Center Admin data (single-user required)
  < > Historical data
      Stop date:
      Stop time: 11:59 PM

Specify ACD(s) to migrate (Select one):
  <x> All ACDs
  < > Single ACD
      from:          to:

Status:

Help      Window  Commands  Keep          Exit      Scroll  Current  MainMenu
    
```

6. In the R3 Migrate Data window, select the options and enter the values that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Data Type	System Administration data
Specify ACD(s)	All ACDs

7. Press **Enter** to access the action list in the top right corner.

8. Select **Run** and press **Enter**.

The system displays the progress of the migration in the `Status:` field. When the migration ends, the system indicates the success or failure of the migration in this field.

9. Press **F3** and select the UNIX option to display the UNIX prompt.

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10. Enter:

```
pg /cms/migrate/r3mig.log
```

This displays the customer migration log.

11. Look at the contents of the customer migration log and take any necessary corrective action. For help with interpreting the log and its messages, contact technical support or your customer representative.

12. To exit the UNIX window, enter:

```
exit
```

Migrating agent and call center administration data

To migrate agent and call center administration data:

1. Verify that the most recent incremental maintenance backup tape is in the tape drive.
2. From the CMS Main Menu, select **System Setup > R3 Migrate Data**.

The system displays the following:

```
3/ 9/01  21:19  CentreVu(R) CMS                               Windows: 1 of 4   vvvv^vvv

System Setup: R3 Migrate Data                                All ACDs
                                                           | Cancel
Device name: default                                       | List devices
                                                           | Run
                                                           +-----+
Data type (Select one):
< > System Administration data (single-user required)
<x> Agent/Call Center Admin data (single-user required)
< > Historical data
      Stop date:
      Stop time: 11:59 PM

Specify ACD(s) to migrate (Select one):
<x> All ACDs
< > Single ACD
      from:           to:

Status:

Help      Window  Commands  Keep           Exit      Scroll  Current  MainMenu
```

- In the R3 Migrate Data window, select the options and enter the values that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Data Type	Agent/Call Center Admin data
Specify ACD(s)	All ACDs

- Press **Enter** to access the action list in the top right corner.
- Select **Run** and press **Enter**.

The system displays the progress of the migration in the `Status:` field. When the migration ends, the system indicates the success or failure of the migration in this field.

- Press **F3** and select the UNIX option to display the UNIX prompt.
- Enter:

```
pg /cms/migrate/r3mig.log
```

This displays the customer migration log.

- Look at the contents of the customer migration log and take any necessary corrective action. For help with interpreting the log and its messages, contact technical support or your customer representative.
- To exit the UNIX window, enter:


```
exit
```
- Select `system setup > CMS state` to put CMS into multiuser mode.

Checking the status of the disks

After migrating the customer's data, you should verify that the disks have resynchronized successfully before leaving the site.

To check the status of the disk drives:

1. Enter:

```
. /opt/informix/bin/setenv
```

2. Enter:

```
onstat -d | egrep "PD|R|X" | pg
```

The system should not display anything except the command prompt.

If any lines display `MX` or `NX`, the disk requires maintenance. Escalate through normal channels.

If one or more lines display with `PD` or `MR`, the disks either need resyncing or are currently resyncing. If any disks are still resyncing, you should continue to check the system and run the `onstat` command to verify that the disks are in a stable state.

Replacing the customer's tapes

After migrating the customer's data, remove the tapes from the tape drives, and replace any tapes that the customer originally had in the tape drives. These tapes may be used for scheduled backups and must be replaced before leaving the customer site.

Troubleshooting upgrade failures

If you receive an error message that one of the installation scripts failed when you run the `cvue_activate` command, you may be able to recover and continue with the upgrade. Some of the installation scripts can be skipped during this part of the upgrade. However, any script that is skipped during this part of the upgrade must be installed later using the standard software installation procedures found in the CMS software installation document.

The following table lists all of the possible software installation scripts, and explains what to do if one of them fails during the upgrade. When identifying the installation scripts, be aware that each script is numbered with a prefix (for example, S04) before the script name.

Script name	Description	How to recover
install_sql	ISQL software	All of these scripts install optional software or drivers needed by the customer. You can skip the script and reinstall the software later. To skip the script: 1. Enter: <code>cd /adminsave/init.d</code> 2. Enter: <code>mv <i>scriptname</i> /adminsave/</code> where <i>scriptname</i> is the name of the script. 3. Enter: <code>cd /cdrom/cdrom0</code> 4. Run the <code>./cvue_activate</code> command again. 5. Install the software package that you skipped before you migrate the customer's data. After each script is executed, a copy of the script is moved to <code>/adminsave/init.d.completed</code> .
x25_setup	Set up X.25	
install_nts	NTS drivers	
install_hsip	HSI/P drivers	
install_hsis	HSI/S drivers	
install_saip	SAI/P drivers	
install_saipu	SAI/P utilities	
install_tokenring_s	Token Ring software	
install_tokenring_p	Token Ring software	
install_odbcX_X	ODBC software	

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Script name	Description	How to recover
sethostname	Sets the host name	For all of these scripts, do not attempt to continue with the upgrade. Escalate the problem through the normal channels.
install_supplemental	Supplemental services	
sqlhosts	SQL hosts file setup	
dev_links	Cleans up WWN and resets Informix paths (E3500 only)	
fixsendmail	Restores proper permissions	
AdministerPrinters	Administers serial printers	
modifyfile	Restores CMS setup information	
checkdevices	Checks for devices	
add_disks	Adds nonboot disks	
storage	Data storage allocation	
converter	Preserves CMS setup data	
cmssetup	CMS setup command	
cmsfeatpkg	Feature package setup	
instUSProvisioning	Installs United States provisioning scripts	

Procedures that are done by the customer after the upgrade

Overview

After the upgrade is completed, the customer must do the following procedures to restore the system to normal operation:

Procedure	Completed
Migrate historical data.	
Restore non-CMS files (optional).	
Install and administer unpreserved software (optional).	
Do a CMSADM backup.	
Do a full maintenance backup.	

Migrating historical data

Migrate historical data after migrating the system administration data, and the agent and call center administration data. You must migrate the historical data twice, first using the full backup tape, followed by the incremental backup tape.

To migrate historical data:

1. Log on to CMS.

The system displays the CMS main menu.

2. Verify that the maintenance backup tape is in the tape drive. Use the full backup first, followed by the incremental backup.

3. From the CMS main menu, select **System Setup > R3 Migrate Data**.

The system displays the following:

```
3/ 9/01 21:19 CentreVu(R) CMS                               Windows: 1 of 4   vvvv^vvv

System Setup: R3 Migrate Data                                All ACDs
                                                            | Cancel
Device name: default                                       | List devices
                                                            | Run
                                                            +-----+
Data type (Select one):
< > System Administration data (single-user required)
< > Agent/Call Center Admin data (single-user required)
<x> Historical data
    Stop date:
    Stop time: 11:59 PM

Specify ACD(s) to migrate (Select one):
<x> All ACDs
< > Single ACD
    from:          to:

Status:

Help   Window  Commands  Keep           Exit   Scroll  Current  MainMenu
```

4. In the R3 Migrate Data window, select the options and enter the values that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Data Type	Historical data
Stop date	Leave blank
Stop time	11:59 PM
Specify ACD(s)	All ACDs

5. Press **Enter** to access the action list in the top right corner.
 6. Select **Run** and press **Enter**.

The system displays the progress of the migration in the `Status:` field. When the migration ends, the system indicates the success or failure of the migration in this field.

Note that a full historical migration can take several hours. It runs in the background, however, so you can exit the migration window and perform other tasks. If you do that, bring up the migration window periodically to check on the progress.

7. Press **F3** and select the UNIX option to display the UNIX prompt.
 8. Enter:
`pg /cms/migrate/r3mig.log`
 This displays the customer migration log.
 9. Look at the contents of the customer migration log and take any necessary corrective action. For help with interpreting the log and its messages, contact technical support or your customer representative.
 10. To exit the UNIX window, enter:
`exit`

Restoring non-CMS files

The customer may want specific non-CMS files copied from the preupgrade CMSADM backup tape to the upgraded system. The procedure is different if the old system was R3V6 or earlier, or if the old system was R3V8.

R3V6 and earlier

To copy specific files from an R3V6 or earlier system:

1. Insert the most recent CMSADM backup tape from the old system into the tape drive.
2. Enter the following command for each file you want to copy:

```
cpio -icmudv -C 10240 -I /dev/rmt/X -M "Remove current tape,  
insert tape number %d, press ENTER" "/<path>/<file_name>"
```

The `/<path>/<file_name>` is the fully-qualified path to the file being copied.

The `x` is either 0 or 1, depending on how many tape drives are connected to the system. If you have only one tape drive, use 0. If you have more than one tape drive, use the following commands to determine which tape drive you should use:

```
mt -f /dev/rmt/0 status
```

```
mt -f /dev/rmt/1 status
```

The tape drive that contains the CMSADM backup tape reports a status similar to the following:

```
<tape drive model name>:  
sense key(0x6)= Unit Attention      residual= 0  retries= 0  
file no= 0  block no= 0
```

For example, a command to copy the file `/accounting/invoices` would be:

```
cpio -icmudv -C 10240 -I /dev/rmt/X -M "Remove current tape,  
insert tape number %d, press ENTER" "/accounting/invoices"
```

R3V8

To copy specific files from an R3V8 system:

1. Insert the most recent CMSADM backup tape from the old system into the tape drive.
2. Enter:

```
cd /
```

3. Enter the following command for each file you want to copy:

```
cpio -icmudv -C 10240 -I /dev/rmt/X -M "Remove current tape,
insert tape number %d, press ENTER" "<path>/<file_name>"
```

The *<path>/<file_name>* is the relative path to the file being copied.

The *x* is either 0 or 1, depending on how many tape drives are connected to the system. If you have only one tape drive, use 0. If you have more than one tape drive, use the following commands to determine which tape drive you should use:

```
mt -f /dev/rmt/0 status
```

```
mt -f /dev/rmt/1 status
```

The tape drive that contains the CMSADM backup tape reports a status similar to the following:

<pre><tape drive model name>: sense key(0x6)= Unit Attention residual= 0 retries= 0 file no= 0 block no= 0</pre>
--

For example, a command to copy the file **/accounting/invoices** would be:

```
cpio -icmudv -C 10240 -I /dev/rmt/X -M "Remove current tape,
insert tape number %d, press ENTER" "accounting/invoices"
```

Installing and administering unpreserved software

After the CVUE upgrade, any unpreserved software should be installed and any new features or services should be administered. The following table lists several of these features and services, and the Avaya organization that can be contacted for assistance.

Feature or service	Responsible ¹
Internet Call Center	Professional Services Organization (PSO)
Network information names service, such as NIS or NISplus	PSO
Network printers	PSO
Pseudo-ACDs. Pseudo-ACDs must be added, and then data must be migrated from the old system.	PSO
Visual Vectors server software Vector layouts and comments backed up before the upgrade should be restored using the <code>setupaas</code> command and <code>restore</code> option.	Provisioning
Mounted file systems that were in the customer's <code>/etc/vfstab</code> file before the upgrade. See the copy of <code>/etc/vfstab</code> that is saved in <code>/var/log/cvuelog</code> . Have your administrator verify that your new configuration is correct.	Provisioning
Common Desktop Environment options such as screen layout and password protection	Provisioning
Add, change, or remove ACDs	Provisioning
Add CentreVu Supervisor logins	Provisioning
Install new feature packages (if purchased)	Provisioning
Change authorizations	Provisioning
Install Open Database Connectivity (ODBC)	Provisioning
Start up the Alarm Origination Manager (AOM) software	Provisioning

1. Outside of the United States, Avaya distributors are responsible for these items, with assistance from the COE.

Doing a CMSADM backup

Do a CMSADM backup on the system as described in *CentreVu CMS R3V9 Software Installation, Maintenance and Troubleshooting*, 585-215-956.

Doing a full maintenance backup

A full maintenance backup provides migration data for the new CMS version. Backups are done using the CMS Backup Data window.

To do a full maintenance backup:

1. Log on to CMS.
2. Select **Maintenance > Back Up Data** from the CMS main menu.

The system displays the following:

```

3/ 9/01  21:29  CentreVu(R) CMS                               Windows: 1 of 4      vvvv^vvv
Maintenance: Backup Data                                     ccqadads28
Backups completed today: 0                                | Cancel
Status:                                                  | List devices
Errors:                                                  | Run
                                                         | Select tables
                                                         +-----+
Device name: default
Verify tape can be read after backup? (y,n): y

ACD(s) to back up (Select one):
 <x> All ACDs  < > Current ACD

Data to back up (Select any you wish):
[x] Local system administration data
[x] CMS system administration data
[x] ACD-specific administration data
[x] Historical data,
    Select one:
        <x> Full  < > Incremental
[x] Non-CMS data
[ ] Specific tables

Help      Window  Commands  Keep          Exit      Scroll  Current  MainMenu
    
```

Upgrading an Enterprise 3000 to CMS R3V9

3. In the Backup Data window, select the options and enter the values that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Verify tape...?	y
ACD(s) to back up	All ACDs
Data to back up	Local system administration data CMS administration data ACD-specific administration data Historical data - Full Non-CMS data (if needed)

4. Press **Enter** to access the action list, and select **Run**.
5. After the backup is complete, remove, label, and reinsert the backup tape.